SEMS DocID 100022278

REMEDIAL SITE ASSESSMENT DECISION - EPA REGION I

Site Name: R.P. Olson and Son Co. EPA ID#: CTD982191777

Alias Site Names:

City: Southington County or Parish: State: CT

Refer to Report Dated: July 12, 1993 Report type: SI

Report developed by: Weston ARCS

DECISION:

| | 1. Further Remedial Site Assessment under CERCLA (Superfund) is not required because:

| | 1a. Site does not qualify for further remedial site assessment under CERCLA (Site Evaluation Accomplished - SEA)

| | 1b. Site may qualify for further action, but is deferred to: | | RCRA | | NRC

| | 2. Further Assessment Needed Under CERCLA: 2a. (optional) Priority: | | Higher |X| Lower

2b. Activity Type: | | PA |X| ESI | | SI | | HRS evaluation

| | Other:

DISCUSSION/RATIONALE:

Contaminated receptors not documented. Further sampling necessary.
Determine relationship to SRS NPL site.

Onsite well not contaminated - see letter dated 1-27-94

Report Reviewed and Approved by: Signature: Date:

Site Decision Made by: Signature: L. Anderson Date: 7-20-93

EPA Form # 9100-3

FINAL SITE INSPECTION REPORT
FOR
R.P. OLSON AND SON CO.
SOUTHINGTON, CONNECTICUT

CERCLIS No. CTD982191777
TDD No. 9105-69-AWS
Work Assignment No. 09-1JZZ

Prepared by:

Roy F. Weston, Inc.
525 Brook Street
Rocky Hill, Connecticut 06067

July 12, 1993

WESTON/ARCS
Reviewed and Approved:

[signature]	7/14/93
Task Manager	Date
[signature] for Jocelyn Boesch	7/14/93
Site Manager	Date
[signature]	7/14/93
QA Review	Date

Work Order No. 4100-09-49-0007

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R.P. Olson and Son Co.
Southington, Connecticut

CERCLIS No. CTD982191777
TDD No. 9105-69-AWS
Work Assignment No. 09-1JZZ
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INTRODUCTION

The Roy F. Weston, Inc. Alternative Remedial Contract Strategy (WESTON/ARCS) team was requested by the Region I U.S. Environmental Protection Agency (EPA) Waste Management Division to perform a Site Inspection of the R.P. Olson and Son Co. property in Southington, Connecticut. All tasks were conducted in accordance with the ARCS contract, and the Site Inspection scope of work and technical specifications provided by the EPA under Work Assignment No. 09-1JZZ which was issued to WESTON/ARCS on March 26, 1991. The NUS Corporation prepared a Preliminary Assessment of this property on July 22, 1988, which found that wastes from the property had been disposed in an on-site dry well. During this Preliminary Assessment, several corroded and open drums were observed along the banks of a stream located on the property. The Site Inspection was initiated on the basis of the information provided in the Preliminary Assessment.

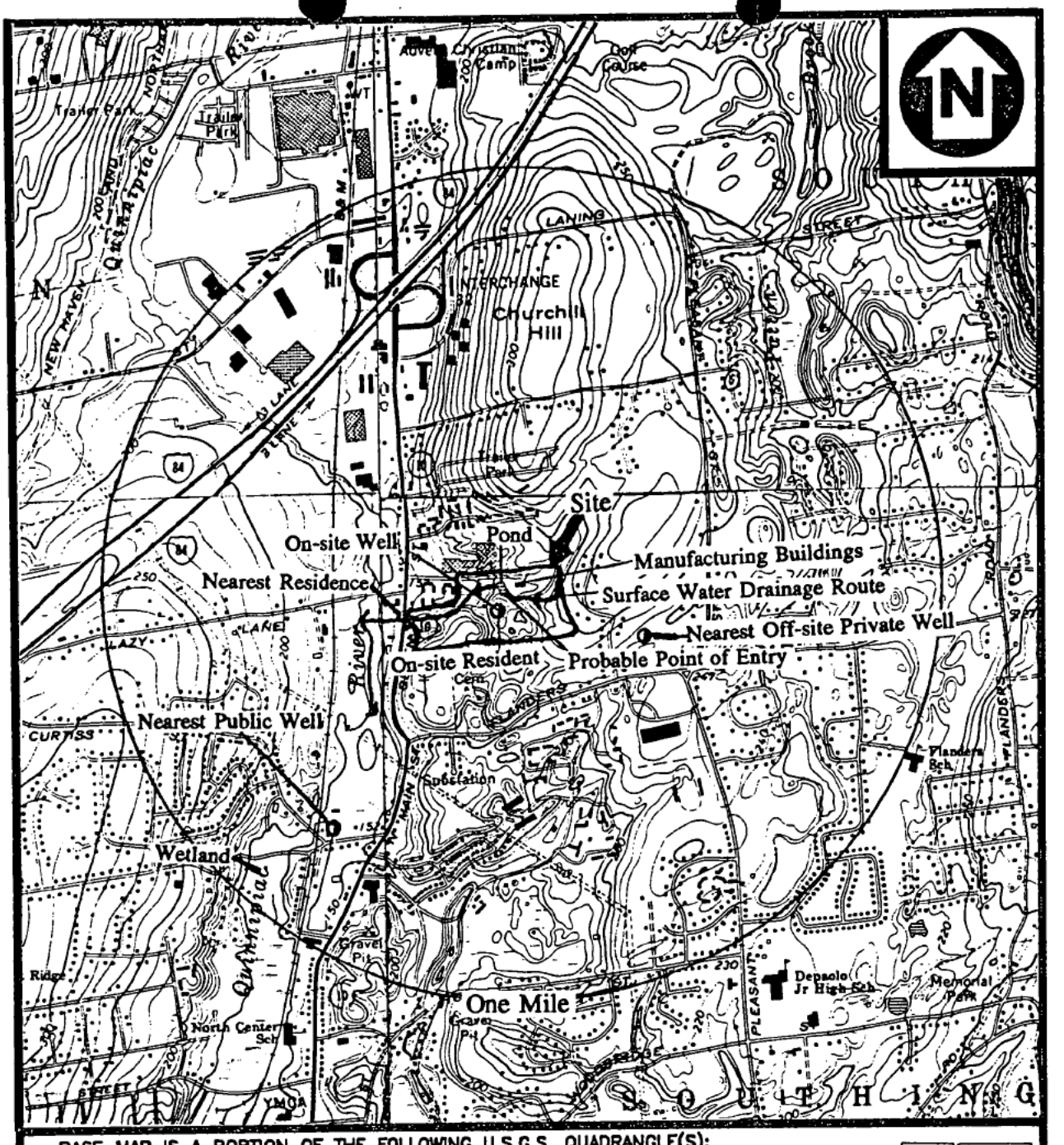
Background information used in the generation of this report was obtained through file searches conducted at the Connecticut Department of Environmental Protection (CT DEP) and the Region I EPA, telephone interviews with town officials and individuals knowledgeable of the site history and site characteristics, and conversations with other Federal, State and local agencies. Information was also collected during the WESTON/ARCS on-site reconnaissance conducted on August 12, 1992 and the WESTON/ARCS sampling event conducted on August 19, 1992.

This package follows guidelines developed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended, commonly referred to as Superfund. However, these documents do not necessarily fulfill the requirements of other Environmental Protection Agency regulations such as those under the Resource Conservation and Recovery Act (RCRA) or other Federal, State or local regulations. Site Inspections are intended to provide a preliminary screening of sites to facilitate EPA's assignment of site priorities. They are limited efforts and are not intended to supersede more detailed investigations.

SITE DESCRIPTION

The R.P. Olson and Son Co. (Olson) property is located at 241 Queen Street (Route 10) in Southington, Hartford County, Connecticut (latitude 41° 37' 19" N, longitude 72° 52' 09" W) (Figure 1). The Olson building is located in the northeast corner of a 28 acre parcel owned by Olson [1]. There are two manufacturing operations on the Olson property; R.P. Olson and Son, a screw machine shop and "The Job Shop", a producer of small machine parts using stamping dies, located approximately 25 feet east of the Olson building. The Job Shop building is leased to its current operator by Olson. According to the site contact, this business has been on-site since 1972 but has undergone several changes in ownership [1,3].

The Olson property is bordered to the northeast and east by undeveloped woodland. Beyond the



BASE MAP IS A PORTION OF THE FOLLOWING U.S.G.S. QUADRANGLE(S):
NEW BRITAIN, BRISTOL, MERDIAN, AND SOUTHINGTON CONNECTICUT 1984 1:24,000

1 MILE 0.5 0 1

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

CONNECTICUT

QUADRANGLE LOCATION

LOCATION MAP
R.P. OLSON AND SON CO.
SOUTHINGTON, CONNECTICUT

WESTON MANAGERS DESIGNERS/CONSULTANTS

FIGURE 1

undeveloped land is residential property. The property is bordered to the south by a cemetery and apartments. The property is bordered by two commercial operations and Queen Street to the west, and by a large shopping plaza to the northwest [1].

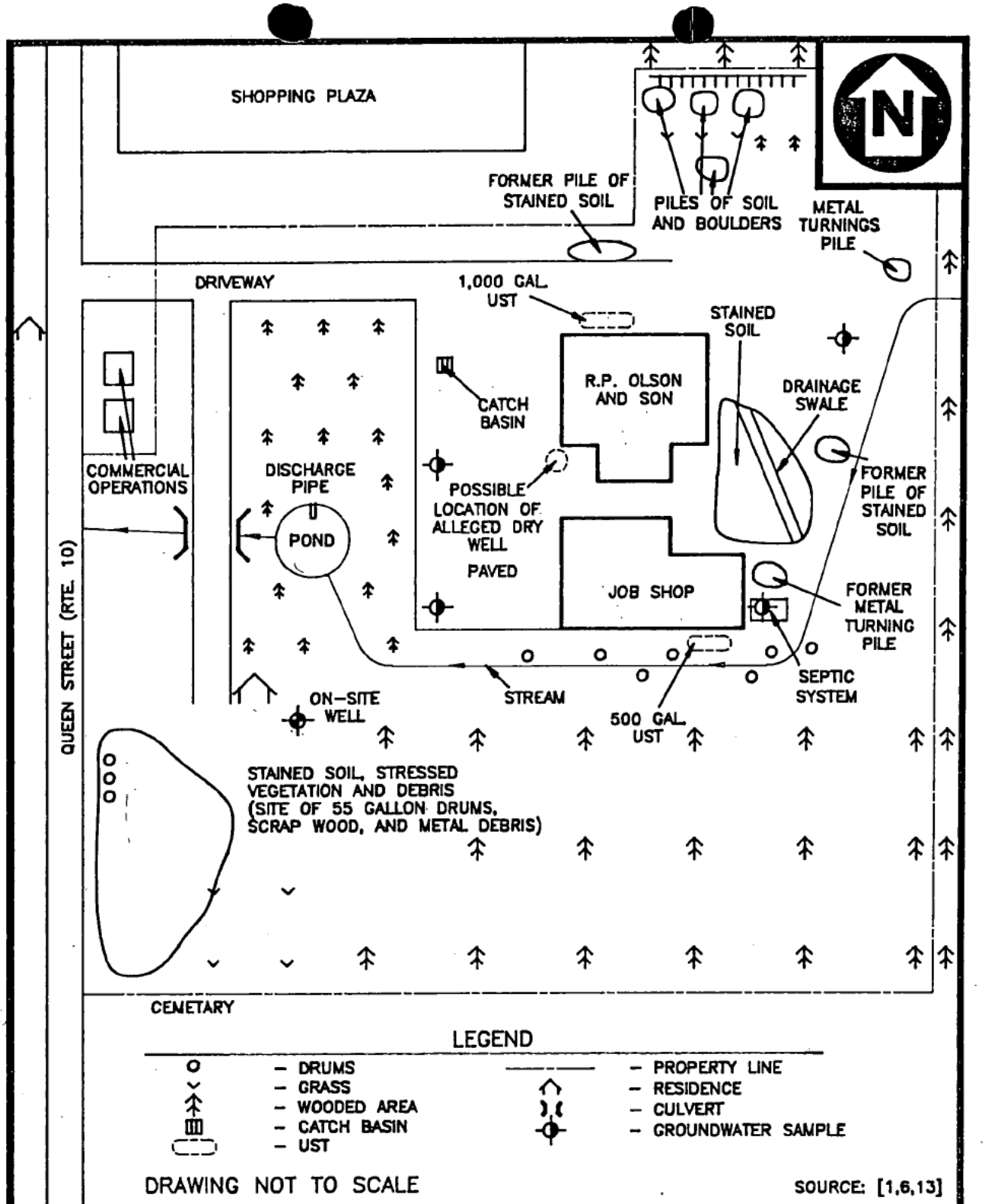
There are three buildings on the subject property. The approximately 1,500 square foot (sf) Olson facility and 1,500 sf "Job Shop" are located in the northeast corner of the site. These buildings were constructed in 1972. Additionally, a 1,200 sf single family home constructed in the 1940s is located in the central portion of the site, approximately 450 feet west of the manufacturing buildings. Stained soil and a drainage swale with stained soil were observed east (behind) of the manufacturing buildings. A stream was observed entering the property from the east and bisecting the property roughly in an east-west direction. The swale did not appear to connect with to the on-site stream. Areas of stained soil totaled approximately 2,000 sf. The manufacturing facilities and the house are accessed from Queen street by paved driveways. A small paved parking area is located on the west side of the Olson and Job Shop buildings. There are no impediments to site access (Figure 2) [1].

The majority of the subject property is undeveloped and consists of woodland or over-grown fields. A small westward flowing unnamed stream enters the subject property along its eastern border. Approximately seven open and empty 55 gallon drums and six five gallon pails were observed on the stream banks at various locations along an approximate 600 foot reach of stream located east and south of the manufacturing buildings. Sediment and soil around some of these drums was stained. The total area of stained soils along this reach of stream was approximately 200 sf. A pile of metal turning waste measuring approximately 90 cubic yards, was observed near the stream, approximately 500 feet east of the Olson building. Soil in the vicinity of this pile was heavily stained. The site contact estimated that the pile was at least 10 years old [1].

The unnamed stream enters a pond located 30 feet southwest of the Olson building in the central portion of the property. The stream flows from the pond to the west through the central portion of the property to Queen Street. A discharge pipe was observed on the northern edge of the pond. According to the site contact, tumbling sludge and degreasers were discharged to the pond through this pipe [1]. The area around the stream and pond, with the exception of the area developed for manufacturing purposes, was wooded [1].

Several piles of scrap wood and metal debris including empty 55-gallon drums were observed in the southwest corner of the site approximately 300 feet south of the residence. The area in the vicinity of these piles had stained soil and was either devoid of vegetation or the vegetation appeared to be stressed. Surficial soils over this entire area appeared to be highly disturbed with areas devoid of vegetation and piles of surficial materials observed.

According to the site contact, a previous tenant of the house had collected a variety of waste material and debris and stored this material south of the residence. The contact stated that a portion of this material had been removed. The period of time during which the material south of the residence was deposited and the date of removal are unknown. To the best of the site contact's knowledge, no waste had been buried in this area, however, it appeared that significant amounts of earth work had occurred in this area as vegetation was generally weedy and several piles of excavated earth were visible in the area. The area of debris, disturbed vegetation and disturbed and stained soil covered approximately 85,000 sf. According to the site contact, some



SITE SKETCH

R.P. OLSON AND SON CO.
SOUTHINGTON, CONNECTICUT

WESTON MANAGERS DESIGNERS/CONSULTANTS

FIGURE 2

gravel mining had occurred in the area southwest of the residence [1].

The area north of the Olson building appeared to be heavily excavated. Vegetation consisted of grass and shrubs. Piles of earth and rock and steeply cut banks were observed. According to the site contact, this area had been excavated for gravel during the construction of the shopping plaza northwest of the property. No evidence of buried debris was observed in this area [1].

Past investigations of the subject property noted a second metal turning pile located behind the Job Shop; two piles of stained soil, one located east of the Olson building and one located north of the driveway leading to the manufacturing facilities; and abandoned office trailers in the vicinity of the debris pile south of the residence [6,13]. These features were not observed during the WESTON/ARCS OSR [1].

The property is rolling with several high and low points. Generally, the property slopes from a high point along its northeast edge at approximately 250 feet above mean sea level (MSL) to a low point near its southwest corner at approximately 170 feet above MSL [4]. Portions of the property, particularly the northeast and southwest corners have been subjected to earthwork that have significantly altered the property's terrain. According to the site contact, this work was part of gravel mining operations that occurred prior to 1972 [1].

Stormwater from the developed portion of the property including the manufacturing facilities and their parking area, is collected in a catch basin located west of the Olson building. The discharge point of this stormwater drainage system was not observed, however it is assumed to be the small pond west of the Olson building at the central portion of the site [1,6]. Stormwater from undeveloped portions of the property either enters the small stream flowing through the central portion of the property as overland flow or infiltrates below the ground surface [1,4].

The nearest residence is located on-site approximately 450 feet west of the manufacturing facilities [1]. The nearest off-site residence is located west of the property on the west side of Queen Street approximately 900 feet from the manufacturing facilities. Public water, supplied by the Southington Water Department, is available on-site at the manufacturing buildings and in the vicinity of the property. The nearest public water source is the Southington Water Department wells ~~No. 4 and 6~~ located approximately ~~0.4~~ 0.6 miles ~~southwest~~ south of the property. According to the site contact, the residence on the property is served by a private well [1]. The nearest known off-site private well is approximately 0.2 miles east of the property [5]. The Olson facility is served by a municipal sanitary sewer system [1]. According to a Phase I Environmental Site Contamination Assessment Report, prepared by HRP Associates, Inc. (HRP), the Job Shop is served by a septic system located east of the building [6].

OPERATIONAL AND REGULATORY HISTORY AND WASTE CHARACTERISTICS

The subject property was purchased by Olson as part of a one hundred plus acre property in the early 1940s. According to the site contact, the on-site residence was constructed in the early 1940s. Other than this construction, the property was undeveloped and used for agricultural or gravel mining purposes from the early 1940s until 1972. The Olson building and Job Shop

building were constructed in 1972. According to the site contact, no other construction activity has occurred on-site [1,6].

The Olson facility has operated from 1972 to the present as a screw machine shop. Processes occurring in this building include screw machine operations, drilling. milling, limited grinding, tumbling and centrifuging manufactured parts to remove cutting oil. The Job Shop is a machine shop whose operations include milling, grinding, wet grinding, sawing and turning (lathe) operations. This facility has also operated on-site from 1972 to the present [1,3,6,8,9,10,12].

According to the 1988 PA and facility inspections performed by the CT DEP in 1979 and 1981, tumbling wastes from the property were historically discharged to an on-site dry well [2,8,9]. According to the 1987 HRP Site Assessment Report, this dry well was located under the paved parking area immediately west of the Olson building. However, according to the site contact and the 1992 HRP Phase I Environmental Site Contamination Report, this information is incorrect. Historically, liquid tumbling waste from the site was released to a floor drain in the northwest corner of the Olson building which in turn discharged to the pond located approximately 30 feet southwest of the building, rather than to a dry well under the parking lot [3]. Existence or use of the dry well could not be confirmed. According to the site contact, use of the floor drain for waste disposal occurred between 1972 and 1986 [3]. Currently, tumbling waste is discharged to the sanitary sewer. Tumbling waste is expected to contain water and small amounts of solvents and metals [6]. The composition of this waste is unknown, however, based on operations occurring on-site this waste is expected to contain metals, solvents, oils and detergent [2,6,13].

Solid waste generated by Olson include an unknown amount of brass, aluminum and steel turnings. The waste is placed in 55 gallon drums and 5 gallon pails and stored in the Olson building. The locations of these containers within the building are unknown. The metal shavings are hauled off-site by Berl Coles Scrap Company of North Haven, Connecticut approximately once per month. Liquid waste produced by Olson includes a waste cutting oil/solvent mixture (the solvent is mineral spirits). In the past, this waste mixture was stored in a 275 gallon tank within the Olson building. The location of this tank and the duration of storage are unknown. Currently, this waste is stored in four 55-gallon drums and removed by Connecticut Waste Oil of Meriden, Connecticut. The storage locations of these drums is unknown. According to a 1983 CT DEP inspection, cutting oil/solvent waste was stored in drums. The storage location was not specified. According to the site contact, approximately two 55-gallon drums per month of waste are generated [1].

Historically, tumbling wastewater has been discharged to either a dry well or to the pond at a rate of approximately three gallons per day [13]. Currently, tumbling wastewaters are reportedly discharged to the sanitary sewer. According to the site contact, this discharge began in 1986. Tumbling sludge is disposed of with non-hazardous refuse and rubbish hauled from the site by H & V Refuse to a local landfill [1,3,6,13]. From 1972 to 1982 a portion of the turning waste was deposited on-site in a pile located approximately 500 feet east of the Olson building [1]. Currently, turning waste is removed with the refuse and rubbish and hauled to a local landfill for disposal [13].

Solid waste produced by the Job Shop includes non-recyclable scrap metal and other bulky

waste. Metal grinding dust is disposed of with the refuse and rubbish [13]. Some waste grinding dust generated by the Job Shop accumulates on the ground immediately east of the building. Liquid waste generated by the Job Shop includes approximately 20 gallons per month of waste solvent (petroleum naphtha). This material is removed by Safety-Kleen every 60 days. It is unknown how long Safety-Kleen has been removing liquid wastes from this operation. Once per year, grinding sludge from the Job Shop is disposed of with non-hazardous refuse and rubbish [6,13]. No other information concerning waste disposal practices or quantities on-site was available.

According to the site contact and the HRP reports, there are currently two underground storage tanks (USTs) on the subject property. Additionally, a 1,000 gallon steel UST, installed in 1971, is located north of the Olson building. This tank was abandoned in-place in 1980 when it was suspected of leaking. The method of abandonment is unknown. A 550 gallon steel fuel oil UST was installed in 1971 immediately south of the Job Shop Building. This UST is used to store fuel oil. During the HRP 1992 inspection of the property, two empty 275 gallon steel tanks were observed abandoned in the disturbed area east of the on-site residence [6]. These tanks were not observed during the OSR [1].

Table 1 presents identified structures or areas on the Olson property that are potential sources of contamination, the containment factors associated with each source, and the relative location of each source. Table 2 summarizes known wastes that have been generated, disposed, used or stored on the property. Waste quantities are estimated from the HRP 1987 and 1992 reports, discussions with the site contact and information included in CT DEP facility inspections. The only known wastes that were disposed on-site include the three gallons per day (gpd) of tumbling wastewater discharged to either a dry well or the pond between 1972 and 1986 and the metal turning waste deposited either in a pile 500 feet east of the Olson building or behind the Job Shop between 1972 and 1982. There is no file evidence that the cutting oil/solvent mixture was disposed on-site. Grinding dust from the Job Shop operation is deposited on the ground behind the building. There is no file evidence that other wastes produced by the Job Shop were disposed on-site.

Table 1

Source Evaluation for R.P. Olson and Son Co.

Potential Source Area	Containment Factors	Spatial Location
Possible Dry well.	None	Possibly located under the paved parking area, immediately southwest of the Olson building.
Metal turning piles (2).	None	One located approximately 500 feet east of the Olson building adjacent to the point were the unnamed stream enters the property and one formerly located behind the Job Shop.
Former piles of stained soil (2).	Unknown	One formerly located north of the driveway near the Olson building and one formerly located east of the manufacturing buildings.
Pond.	None	Located in the central portion of the property approximately 30 feet southwest of the Olson building.
Reach of stream with 55-gallon drums, five gallon pails and stained soils.	None	Located along an approximately 600 foot long reach of the unnamed stream east and south of the manufacturing buildings.
Area of stained soil and stained drainage swales.	None	Immediately east of the two manufacturing buildings.
Area of stained and disturbed soil, debris, 55-gallon drums and disturbed vegetation.	None	Located approximately 300 feet south of the residence, along the southern portion of the property.
Abandoned UST	None	Located north of the Olson building.

[1,6]

Table 2

Hazardous Waste Quantities for R.P Olson and Son Co.

Substance	Quantity or Volume/Area	Years of Use/Storage	Years of Disposal	Source Area(s)
Tumbling Wastewater (Olson)	3 gpd	1972-Present	1972-1986	Either the possible dry well under the parking lot or the pond southwest of the buildings.
Cutting Oil/Solvent Mixture (Olson)	110 gal/mo	1972-Present	NA	NA
Metal shavings from turning operations (Olson)	90 cu yds	1972-Present	1972-1982	Pile located approximately 500 feet east of the Olson building near the point the unnamed stream enters the property.
Grinding Dust (Job Shop)	Unknown	1972-Present	1972-Present	Deposited onto the ground behind (east) of the Job Shop building.
Waste Solvent (petroleum naphtha) (Job Shop)	20 gal/mo	1972-Present	NA	NA

gpd = gallons per day
gal/mo = gallons per month
cu yds = cubic yards
NA = Not Applicable
[10,13]

On September 25, 1973, the CT DEP investigated a report of a discharge of oil on the driveway to the subject property. The investigation found that oil had been pumped from a fuel oil storage tank onto the driveway along the northern edge of the site by Olson. Some of this oil flowed into the pond on the property. The CT DEP issued a verbal order to Olson to clean up the oil. On September 26 1973, the CT DEP visited the property and observed that the cleanup was in progress. The location of the fuel oil tank and the spill volume were not described in the report [7].

In April 1979, the CT DEP performed a routine inspection of the Olson property. During this inspection, the CT DEP determined that tumbling wastes from the Olson building were discharged to an on-site dry well [8]. In August 1981, the CT DEP inspected the subject property and found that the area immediately east of the manufacturing building contained waste metal chips, 55-gallon drums of waste solvent and soil stained with waste oil. Olson was ordered to clean up the area and store waste drums inside [9]. There is no indication in the files that this order was met by Olson.

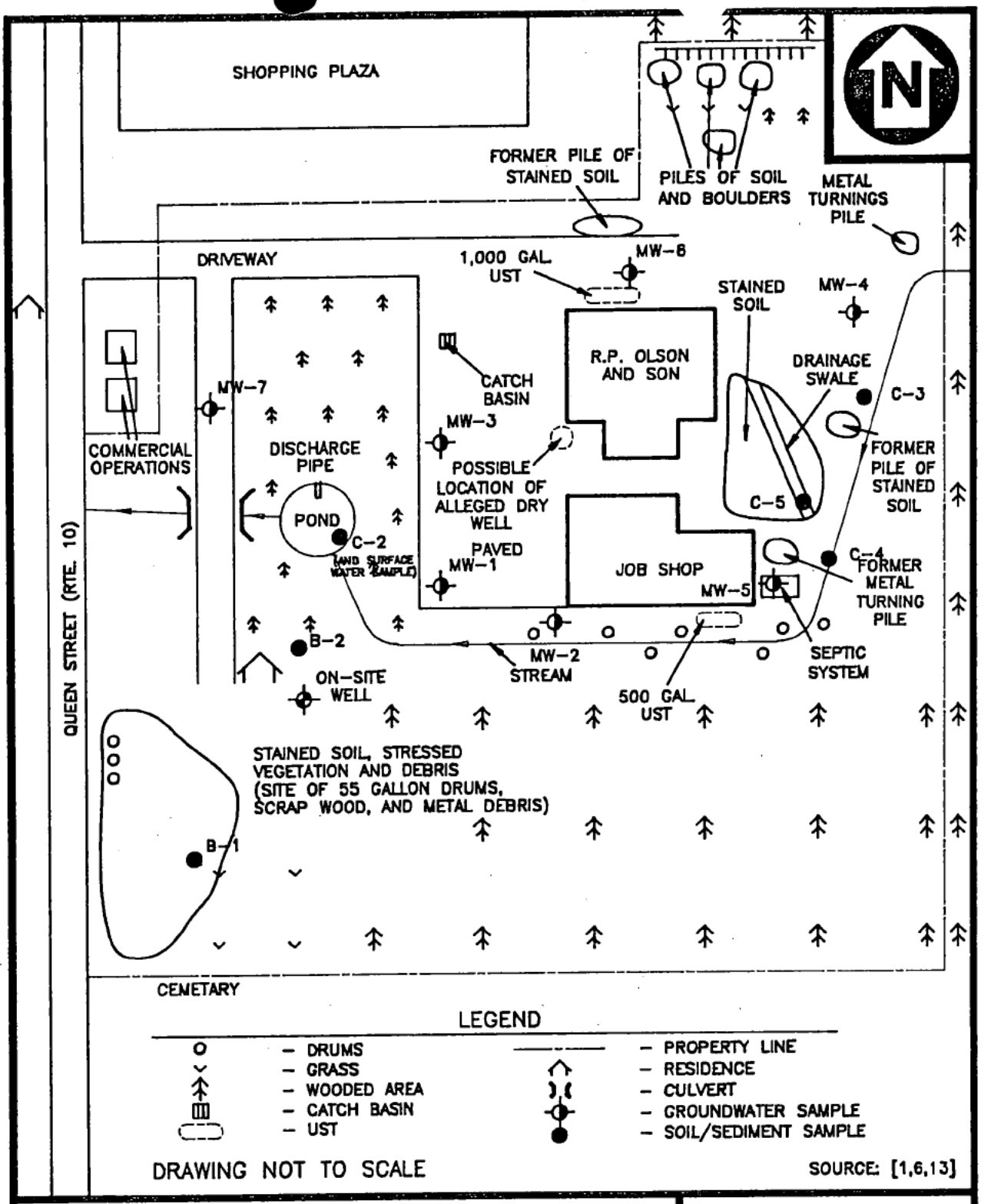
In 1983, the CT DEP completed a hazardous waste inspection of the subject property. The site inspection checklist indicated that waste oil/solvent mixture was stored in 55-gallon drums for removal off-site and that approximately three drums per month of this waste were removed from

the property. The storage location of these drums was not described in the inspection report. The report stated that historically, tumbling wastes had been discharged to a dry well, however, the report also indicated that tumbling waste may also have been discharged to the pond located 30 feet west of the Olson building. This report indicated that, extremely heavy staining observed immediately east of the buildings may have been evidence of on-site waste disposal [10].

In November 1987, HRP conducted an environmental site assessment of the subject property at the request of the property owner. This HRP report stated that waste from tumbling operations was discharged via a floor drain to a dry well under the parking area. During the visual inspection conducted as part of the assessment, HRP observed that the 1,000 gallon fuel tank located north of the Olson building had been improperly abandoned. HRP also observed two piles of turning wastes east of the building. Only the larger of these two piles (located near the stream) was observed during the WESTON/ARCS OSR. HRP also noted a large amount of debris including bulky waste, empty 275 gallon oil tanks, an old office trailer and 55-gallon drums the residence. This material was not observed during the WESTON/ARCS OSR. The site contact stated that most of the debris in this area had been removed [1, 13].

During the 1987 site assessment, HRP conducted a subsurface soil and groundwater sampling program. Nine soil borings were performed, with seven completed as monitoring wells (MW1-MW7). In addition, three hand auger soil samples were collected at various locations on the property (B1, B2, C5); two sediment samples were collected from the unnamed stream (C4 and C3); and one sediment (C2) and one composite surface water sample were collected from the pond (Pond). Figure 3 presents these sampling locations [13].

The hand auger soil samples, sediment samples and selected soil samples from soil boring operations were analyzed for halogenated volatile organics (EPA Method 8010), non-chlorinated volatile organics (EPA Method 8015), aromatic volatile organics (EPA Method 8020), extraction procedure toxic (E.P. Tox) metals and cyanide. Groundwater samples were also analyzed for E.P. metals and volatile hydrocarbons using EPA Methods 8010, 8015 and 8020 and cyanide. It is unknown if the groundwater samples were filtered. The pond water sample was analyzed for E.P. metals and cyanide. No volatile hydrocarbons or cyanide were detected in groundwater samples or the pond water sample. Only barium and copper were detected in groundwater and the surface water samples. Detected concentrations of these elements did not exceeded Connecticut Drinking Water Standards. A few volatile organic compounds were detected in the hand auger soil and sediment sediments. Low concentrations of barium and copper were also detected in these samples. Table 3 summarizes compounds and elements detected in hand auger soil and sediment samples. Appendix A presents the analytical data for all samples collected by HRP [13].



HRP 1987 SAMPLING LOCATIONS
R.P. OLSON AND SON CO.
SOUTHINGTON, CONNECTICUT

WESTON MANAGERS DESIGNERS/CONSULTANTS

FIGURE 3

Table 3

Analytical Results From November 1987
Soil and Sediment Sampling at R.P. Olson and Son Co.

Compound or Element	Sample Location			
	C1	C2	C3	C4
1,1,1-Trichloroethane	25.0 ppb	ND	ND	ND
Tetrachloroethane	51.0 ppb	180.0 ppb	310.0 ppb	45 ppb
Total xylene	734.0 ppb	ND	ND	ND
Barium	0.1 mg/L	0.4 mg/L	0.6 mg/L	0.6 mg/L
Copper	0.23 mg/L	0.35 mg/L	0.02 mg/L	0.01 mg/L

ppb = parts per billion
ND = Not Detected
mg/L = milligrams per liter
[13]

In July 1988, NUS completed a PA of the subject property. The PA report stated that tumbling wastes and degreasers were discharged to an on-site dry well. During the PA, unlabeled empty 55 gallon drums and five gallon pails were observed on the banks of the unnamed stream east and south of the manufacturing buildings. The PA also stated that water from the pond was used for cooling water by Olson [2].

In June 1989, the CT DEP Hazardous Materials Management Unit (HMMU) received an anonymous complaint stating that employees of Olson were observed discharging the contents of three 55 gallon drums to the unnamed stream behind the manufacturing building. The contents of the drums were not determined [11]. In December 1989, The CT DEP HMMU, responding to this complaint, performed an inspection of the subject property. This inspection found that wastes from the property were either discharged to the sanitary sewer or drummed and hauled off-site for disposal. No evidence of on-site disposal or spills were observed during this inspection [12].

In June 1992, HRP performed a Phase I Environmental Site Contamination Assessment Report of the subject property. This report stated that no tumbling waste from Olson had been discharged to an on-site dry well, rather, the tumbling waste was discharged via a floor drain to the pond west of the Olson building. The following potential sources of contamination were observed during this investigation: two approximately two cubic yard piles of stained soil, one located north of the Olson building and one located east of the Olson building; an approximately 90 cubic yard pile of metal turning waste northeast of the Olson building; a 25 sf area of grinding dust immediately west of the Job Shop; and stained soil and stressed vegetation northeast of the Job Shop [6]. The two piles of stained soil and the area of grinding dust were not observed during the WESTON/ARCS OSR [1].

HRP also noted that while wastes were no longer discharged to the floor drain and subsequently to the pond, the floor drain had not been sealed. HRP concluded that the possibility of wastes entering the drain from the facility still existed [6]. No observations concerning the area of debris south of the residence were described in the HRP report [6].

The Olson property is not listed as a RCRA facility [14]. There are 13 known RCRA notifiers within one mile of the subject property as listed in Table 4 [15]. The Olson property is included in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS). There are three other known CERCLIS sites within one mile of the subject property [15]. Table 5 lists CERCLIS sites within one mile of the Olson property. One of the properties, Solvents Recovery Service of New England, is also included in the National Priorities List (NPL).

Table 4

Former and Current RCRA Notifiers Within One Mile of R.P. Olson and Son Co.

Site Name	Facility ID Number	Distance/Direction from Site
Texaco Service Station	CTD983874249	0.2 miles SW
Jiffy Lube	CTD983975915	0.2 miles SW
Sunoco Service Station	CTD000844308	0.3 miles SW
Ronco Auto Body	CTD108952466	0.3 miles NW
Northeastern Shaped Wire Inc	CTD081292690	0.4 miles SW
Exxon Co USA	CTD9838770002	0.4 miles NW
Carriage Trade Cleaners	CTD981205131	0.45 miles SW
Gengras Chevrolet	CTD981210198	0.6 miles NW
Southington Auto Body & Frame	CTD982194201	0.7 miles SW
Solvents Recovery Service of New England	CTD009717604	0.7 miles E
Step Saver Inc	CTD982545253	0.8 miles NW
Beaton & Corbin MFG Co Inc	CTD001140435	0.9 miles SW
Light Metals Coloring Co Inc	CTD001162460	0.9 miles SW

[14]

Table 5

CERCLIS Properties Within One Mile of R.P. Olson and Son Co.

Site Name	Facility ID Number	Distance/Direction from Site
Marek Property	CTD983884438	0.6 miles S
Solvents Recovery Service of New England	CTD009717604	0.25-0.50 miles W ~~0.7 miles E~~
Light Metals Coloring Co.	CTD001162460	0.5 miles SW

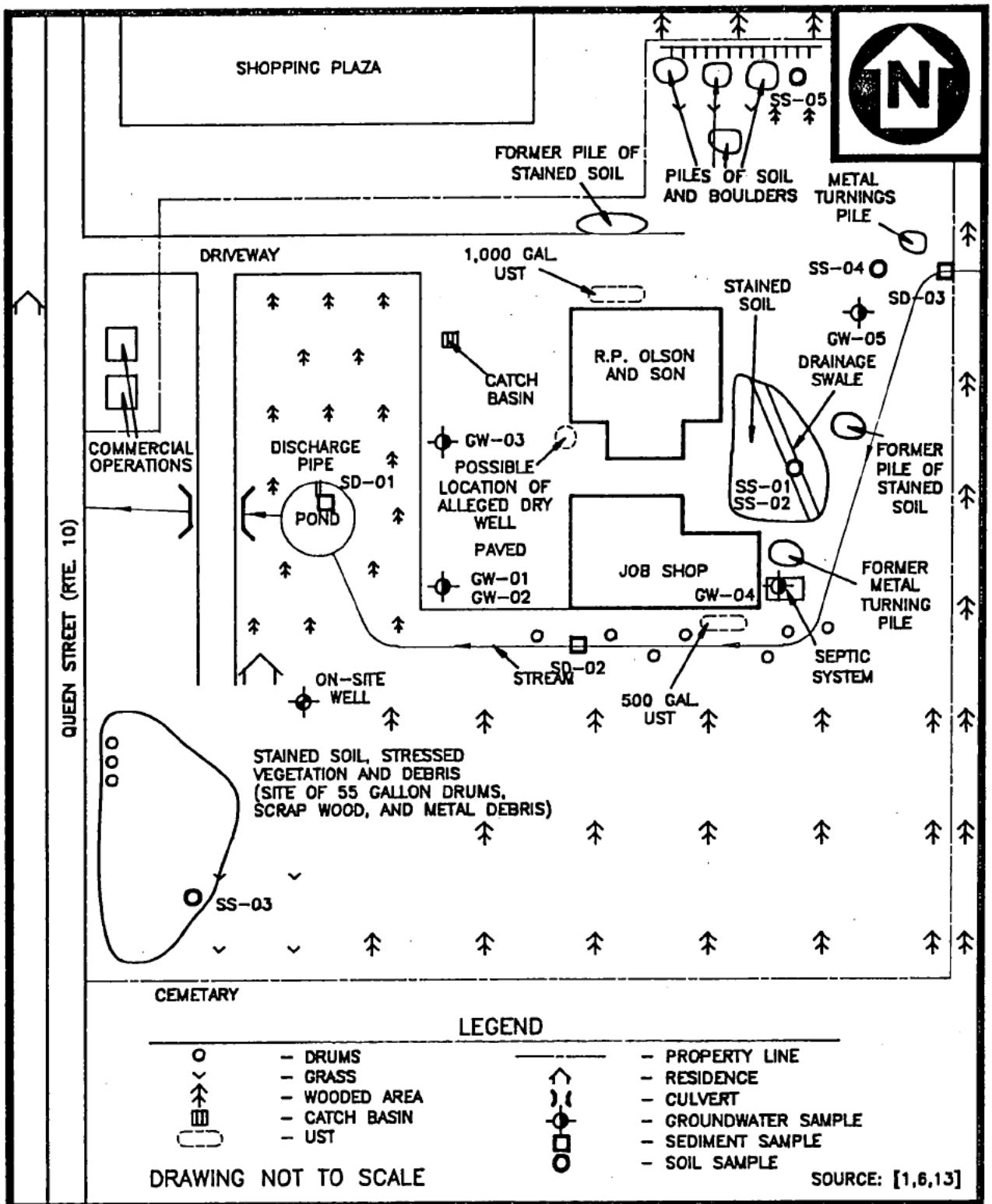
[15]

WASTE/SOURCE SAMPLING

On August 19, 1992, WESTON/ARCS collected four soil composite samples, comprised of three samples collected within a 10 foot radius and two sediment samples from potential source areas on the Olson property including the areas of stained soil immediately east the manufacturing buildings and south of the residence; the metal turnings pile east of the Olson building; the pond; and the reach of stream where 55 gallon drums and five gallon pails were observed. Two reference samples (SS-05 and SD-03) were collected from areas presumed to be undisturbed. Figure 4 illustrates the approximate location of samples collected by WESTON/ARCS on August 19, 1992. Table 6 presents a summary of potential source samples collected by WESTON/ARCS on August 19, 1992. All samples were submitted for full organic, total metals and cyanide analysis through the EPA Contract Laboratory Program (CLP).

Table 7 is a summary of compounds and elements detected through the CLP analysis of WESTON/ARCS soil and sediment samples. For each sample location, a compound or element is listed if it is detected at three times or greater than the reference sample concentration. Compounds or elements which occur at a concentration three times or greater than the reference concentration (sample location SS-05 or SD-03) are designated by their approximate relative concentration above the reference value. If the element or compound is not detected in the reference sample, the sample quantitation limit (SQL) (for organic analyses) or sample detection limit (SDL) (for inorganic analyses) for the reference sample is used as a reference value. Accordingly, compounds or elements are listed by their approximate relative concentration above the SQL or SDL only if they occur at a value equal to or greater than the reference sample's SQL or SDL.

The complete analytical results of the WESTON/ARCS sampling activities, including quantitation and detection limits, are presented in Attachment B. Sample results qualified with a "J" on the analytical tables are considered approximate because of limitations identified during the CLP data validation, In addition, organic sample results reported at concentrations below quantitation limits and confirmed by mass spectrometry are also qualified by a "J" and considered approximate.



WESTON/ARCS SAMPLING LOCATIONS
R.P. OLSON AND SON CO.
SOUTHINGTON, CONNECTICUT

WESTON MANAGERS DESIGNERS/CONSULTANTS

FIGURE 4

Table 6

Sample Summary: R.P. Olson and Son Co.
Source Samples Collected by WESTON/ARCS on August 19, 1992

Sample Location No.	Traffic Report No.	Time	Remarks*	Sample Source
MATRIX: Soil				
SS-01	ACM91 MAAY38	0747	Composite, Depth - 18 inches	Collected from the stained drainage swale 20 feet east of the eastern side of the Job Shop building.
SS-02	ACM92 MAAY39	0747	Composite, Depth - 18 inches	Duplicate of SS-01 for quality control.
SS-03	ACM93 MAAY40	1105	Composite, Depth - 24 inches	Collected from an area of stained soil and debris approximately 300 feet southwest of the on-site residence.
SS-04	ACM94 MAAY41	0915	Composite, Depth - 18 inches	Collected from the west side of the waste metal turning pile, located along the eastern edge of the property near the unnamed stream.
SS-05	ACM95 MAAY42	1145	Composite, Depth - 24 inches	Collected in the northeast corner of the property approximately 500 feet north of the driveway (reference sample assumed to be undisturbed).
MATRIX: Sediment				
SD-01	ACM96 MAAY43	0805	Grab, Depth - 12 inches	Collected from the pond, one foot from the discharge pipe.
SD-02	ACM97 MAAY44	0930	Grab, Depth - 12 inches	Collected from an area of stained sediment along the reach of stream south of the buildings were 55-gallon drums and five gallon pails were observed.
SD-03	ACM98 MAAY45	1135	Composite, Depth - 12 inches	Collected from the unnamed stream at the eastern edge of the property at the point where the stream enters the property (reference sample presumed to be undisturbed).

* = Aliquots for volatile organic analysis were collected as grab samples.

[3]

Table 7

Summary of Analytical Results:
Source Sample Analysis for R.P. Olson and Son Co.

Sample Location No.	Compound/Element	Concentration	Reference Concentration	Comments
MATRIX: Soil				
SS-01 ACM91 MAAY38	Acetone	14,000 ug/kg	550 ug/kg	25.5 x SQL
	Barium	111 mg/kg	35.6 mg/kg	3.1 x REF
	Calcium	1,460 mg/kg	293 mg/kg	5 x REF
	Chromium	84.8 mg/kg	14.7 mg/kg	5.8 x REF
SS-02 ACM92 MAAY38	Bis(2-ethylhexyl)phthalate	1,800 ug/kg J	70 ug/kg J	25.7 x REF
	Barium	113 mg/kg	35.6 mg/kg	3.2 x REF
	Calcium	1,760 mg/kg	293 mg/kg	6 x REF
	Chromium	75 mg/kg	14.7 mg/kg	5.1 x REF
	Zinc	146 mg/kg J	46.5 mg/kg J	3.1 x REF
SS-03 ACM93 MAAY39	Bis(2-ethylhexyl)phthalate	1,100 ug/kg J	70 ug/kg J	15.7 x REF
	Calcium	2,830 mg/kg	293 mg/kg	9.7 x REF
SS-04 ACM94 MAAY41	Acetone	2,700 ug/kg	550 ug/kg J	4.9 x REF
	Bis(2-ethylhexyl)phthalate	330 ug/kg J	70 ug/kg J	4.7 x REF
	Heptachlor Epoxide	2.3 ug/kg J	1.9 ug/kg	1.2 X SQL
	Endosulfan I	3.5 ug/kg J	1.9 ug/kg	1.8 X SQL
	Calcium	1,880 mg/kg	293 mg/kg	6.4 x REF
	Lead	28.7 mg/kg J	6.8 mg/kg J	4.2 x REF
MATRIX: Sediment				
SD-02 ACM97 MAAY44	Acetone	1,400 ug/kg J	42 ug/kg J	33.3 x SQL
	Carbon Disulfide	2,500 ug/kg	18 ug/kg	138.9 x SQL

J = Quantitation is approximate due to limitations identified during the quality control review.
ug/kg = micrograms per kilogram.
SQL = Sample Quantitation Limit.
mg/kg = Milligrams per kilogram.
REF = Reference Concentration
Note: = Aliquots analyzed for volatile organic compounds were collected as grab samples.
[16,17]

No compounds or elements were detected in SD-01. Volatile organic compounds detected in these source samples included acetone in samples SS-01 (14,000 ug/kg), SS-04 (2,700 ug/kg) and SD-02 (1,400 ug/kg J) and carbon disulfide in sample SD-02 (2,500 ug/kg). The only semi-volatile organic compound (SVOC) detected was bis(ethylhexyl)phthalate in samples SS-02 (1,800 ug/kg J), SS-03 (1,100 ug/kg J) and SS-04 (330 ug/kg J). Acetone and bis(ethylhexyl)phthalate were detected in laboratory blanks as well. Two pesticides detected in sample SS-04 included heptachlor epoxide (2.3 ug/kg J) and endosulfan I (3.5 ug/kg J) [16]. Reportedly, no pesticides have been used on-site [1,3,6,13]. No polychlorinated biphenyls (PCBs) were detected in the source samples. Elements detected included barium in samples SS-01 (111 mg/kg) and SS-02 (113 mg/kg), chromium in samples SS-01 (84.8 mg/kg) and SS-02 (75 mg/kg) and zinc in sample SS-02 (146 mg/kg). These elements are within the concentration range reported in soils in the conterminous United States [18]. Reportedly, none of these elements have been used on-site [1,3,6,13].

GROUNDWATER PATHWAY

The Olson property is underlain by the New Haven Arkose Formation, an arkosic conglomerate and sandstone to medium-to-fine grained feldspathic sandstone and siltstone. The nearest documented fault is located approximately 0.9 miles east of the site [19]. Depth to bedrock in the vicinity of the property ranges from 10 to 50 feet [20]. The majority of the site is overlain by kame plain deposits consisting of sand and gravel stratified drift. The northwest corner of the site is overlain by undifferentiated sand and gravel stratified drift deposits [21]. Based on groundwater measurements taken during WESTON/ARCS sampling, groundwater depth is estimated to be between three and 12 feet below the ground surface [1]. Based on groundwater elevations and regional topography observations, groundwater in the vicinity of the subject property is estimated to flow westward. Net annual precipitation (defined as total precipitation minus lake evaporation) for the State of Connecticut is 24 inches [22].

According to the environmental reports written by HRP, the residence located in the central portion of the subject property is served by a private well. There are no known complaints concerning water quality associated with this well [6,13]. The nearest known off-site private well is located approximately (b) (9) east of the site. The nearest public groundwater supply is the Southington Water Department's ~~wells numbers four~~ and ~~six~~, located approximately (b) (9) South southwest of the property. ~~These wells are abandoned.~~ The nearest used public well is a Southington Water Department well, located (b) (9) south of the property, serving an estimated 5,580 people. These public wells serve an estimated 8,370 people. There are no known wellhead protection areas within four miles of the site [23]. An estimated 60,756 people use public and private groundwater supplies within four miles of the subject property [24]. Table 8 lists public water supply wells within four miles of the site. Table 9 lists the populations receiving drinking water from public and private wells within each of the target distance rings.

Groundwater use was determined by totaling the number of groundwater users in each of the Census Block Groups in each of the distance rings. Census Block Group data were also used to determine the number of people using private wells within each distance ring. Populations using public well water within each ring were based on totals from the "Atlas of Public Water

Supply Sources and Drainage Basins in Connecticut" compiled by the CT DEP and Connecticut Department of Health Services (CT DHS) municipal well user data [24,25,26,27].

Table 8

Public Groundwater Supply Sources Within Four Miles of R.P. Olson and Son Co.

Distance/ Direction from Site	Source Name	Location of Source	Estimated Population Served	Source Type
(b) (9)	Southington Water Department	Southington	Abandoned	Surficial
	Southington Water Department	Southington	5,580	Surficial
	Southington Water Department	Southington	5,580	Surficial
	Southington Water Department	Southington	5,580	Surficial
	Taylor Trailer Park	Southington	104	Bedrock
	Forest Hills Mobile Home Park	Southington	470	Bedrock
	Southington Water Department	Southington	5,580	Surficial
	Plainville Water Department	Plainville	9,580	Surficial
	Southington Water Department	Southington	5,580	Surficial
	Ciccio Court	Plainville	88	Bedrock
	Briarwood	Southington	330	Bedrock
	Plainville Water Department	Plainville	9,580	Surficial
	Southington Water Department	Southington	5,580	Surficial
TOTAL			53,632	

Note: Apportionment for Southington Water Department and Plainville Water Department is approximate as all the well supplies are distributed by the same system, therefore, it is not possible to determine the number of people served by an individual well.

[26,27]

Table 9

Estimated Drinking Water Populations Served by Groundwater Sources Within Four Miles of R.P. Olson and Son Co.

Radial Distance From Olson (miles)	Estimated Population Served by Private Wells	Estimated Population Served by Public Wells	Total Estimated Population Served by Groundwater Sources Within the Ring
0.00 < 0.25	35	0	35
0.25 < 0.50	76	0	76
0.50 < 1.00	385	11,160	11,545
1.00 < 2.00	1,848	11,734	13,582
2.00 < 3.00	2,305	15,660	17,465
3.00 < 4.00	2,475	15,578	18,083
TOTAL	7,124	53,632	60,756

[24,25,26,27]

According to the CT DEP, groundwater in the vicinity of the property is classified as "GA". Water with this classification is assumed to be potential drinking water supply fit for human consumption without treatment. The State goal for this water is to prevent any degradation in water quality [28,29].

Past groundwater investigations at the Olson property involved the installation and sampling of seven monitoring wells by HRP in 1987. Figure 3 presents the location of these monitoring wells. No VOCs or SVOCs were detected in groundwater samples. Barium was detected at 0.1 mg/L in samples MW1, MW2, MW3, and MW4 and at 0.2 mg/L in sample MW5 [13]. It is unknown if groundwater samples were filtered.

On August 19, 1992, WESTON/ARCS collected five unfiltered groundwater samples from four existing monitoring wells on the Olson property. The depth of the wells samples and the depth to groundwater are described in Table 10. One reference sample (GW-05) was collected from an area presumed to be undisturbed. Figure 4 illustrates the approximate location of groundwater, soil and sediment samples collected by WESTON/ARCS on August 19, 1992. Table 10 presents a summary of groundwater samples collected by WESTON/ARCS on August 19, 1992. All samples were submitted for full organic, total metals and cyanide analysis through the EPA CLP.

Table 10

Depth of Wells and Depth to Groundwater in Wells Sampled by WESTON/ARCS

Wells	Depth of Well	Depth to Groundwater
MW-1 (GW-01; GW-02)	17.0'	8.3'
MW-4 (GW-03)	12.6'	9.2'
MW-5 (GW-04)	15.3'	12.3'
MW-7 (GW-05)	12.0'	7.2'

Note: Length of screened intervals were not clear from the boring logs.
[1,2]

Table 11 is a summary of compounds and elements detected through the CLP analysis of WESTON/ARCS groundwater samples. For each sample location, a compound or element is listed if it is detected at three times or greater than the reference sample concentration. Compounds or elements which occur at a concentration three times or greater than the reference concentration (sample location GW-05) are designated by their approximate relative concentration above the reference value. If the element or compound is not detected in the reference sample, the SQL (for organic analyses) or SDL (for inorganic analyses) is used as a reference value. Accordingly, compounds or elements are listed by their approximate relative concentration above the SQL or SDL only if they occur at a value equal to or greater than the reference sample's SQL or SDL.

The complete analytical results of the WESTON/ARCS sampling activities, including quantitation and detection limits, are presented in Attachment A. Sample results qualified with a "J" on the analytical tables are considered approximate because of limitations identified during the CLP data validation, In addition, organic sample results reported at concentrations below quantitation limits and confirmed by mass spectrometry are also qualified by a "J" and considered approximate.

Table 11

Sample Summary: R.P. Olson and Son Co.
Groundwater Samples Collected by WESTON/ARCS on August 19, 1992

Sample Location No.	Traffic Report No.	Time	Remarks	Sample Source
MATRIX: Groundwater				
GW-01	ACM85 MAAY32	0745	Grab, Depth - 11.8 feet	Collected from a well located in the southwest corner of the parking lot (b) (9) from the southwest edge of the pavement.
GW-02	ACM86 MAAY33	0915	Grab, Depth - 11.8 feet	Duplicate of GW-01 for quality control.
GW-03	ACM87 MAAY34	1030	Grab, Depth - 11.5 feet	Collected from a well along the western edge of the parking lot (b) (9) from the edge of pavement (MS/MSD for quality control).
GW-04	ACM88 MAAY35	1220	Grab, Depth - 3.1 feet	Collected from a well located (b) (9) east of the Job Shop building.
GW-05	ACM89 MAAY36	1230	Grab, Depth - 6.7 feet	Collected from a well (b) (9) east of the Olson building (reference sample taken from area presumed to be undisturbed).
RB-06	ACM90 MAAY37	1255	NA	Equipment rinsate for quality control.
TB-07	ACM91 —	0830	NA	Trip blank for quality control.
SD-04	ACM99 MAAY46	1205	NA	Equipment rinsate for quality control.

NA = Not Applicable
[1]

Table 12

Summary of Analytical Results: Groundwater Sample Analysis for R.P. Olson and Son Co.

Sample Location No.	Compound/Element	Concentration	Reference Concentration	Drinking Water Standards	Comments
GW-02 ACM86 MAAY33	Antimony	24.1 ug/L J	16.5 ug/L	6 ug/L[1]	1.5 x SDL
GW-03 ACM87 MAAY34	Arsenic	21.1 ug/L J	4.7 ug/L J	50 ug/L[1]	4.5 x REF
	Barium	5,060 ug/L J	1,030 ug/L	2,000 ug/L[1]	4.9 x REF
	Iron	409,000 ug/L J	104,000 ug/L J	NA	3.9 x REF
	Manganese	110,000 ug/L J	2,920 ug/L J	200 ug/L[2]	37.7 x REF
	Silver	16.5 ug/L J	2.3 ug/L	NA	7.2 x SDL

J = Quantitation is approximate due to limitations identified during the quality control review.
ug/L = Micrograms per Liter.
SDL = Sample Detection Limit.
REF = Reference Concentration
NA = Not Available
[1] = Maximum Contaminant Level
[2] = Maximum Contaminant Level Goal
[28,29,30,31]

No compounds or elements were detected in GW-01 or GW-04. No VOCs, SVOCs, pesticides or PCBs were detected in samples GW-02 or GW-03. Of the elements detected in groundwater samples, antimony (25.1 ug/L) in GW-02 and barium (5,060 ug/L J) in sample GW-03 exceeded their maximum contaminant level (MCL) of six ug/L and 2,000 ug/L respectively. Manganese (110,000 ug/L) in GW-03 exceeded its maximum contaminant level goal (MCLG) of 200 ug/L [28,29,30,31].

SURFACE WATER PATHWAY

The Olson property is located in the Quinnipiac Regional Basin, which is part of the South Central Coast Major Basin [32]. A small portion of the northeast corner of the property is covered with buildings and paved parking areas. The remainder of the property is undeveloped and covered by grasses, shrubs and trees [1]. Storm water runoff from the developed portion of the property is collected in a catch basin which presumably discharges to the pond [6,13]. Storm water runoff from the remainder of the site either enters the unnamed stream flowing through the center of the property or infiltrates the ground surface [1]. The probable point of entry (PPE) from the developed portion of the property to the surface water pathway is at the pond discharge pipe [1].

The 15-mile downstream surface water pathway includes the unnamed stream for a distance of 0.3 miles. At this point, the unnamed stream converges with the Quinnipiac River west of the subject property. Approximately 11.5 miles from the subject property, the Quinnipiac River enters Hanover Pond, a dammed portion of the Quinnipiac River, for a distance of approximately 0.8 miles. The remaining 2.4 miles of the 15-mile downstream pathway is within the Quinnipiac River. The 15-mile downstream pathway ends approximately 2.5 miles south of the Wallingford/Meriden municipal boundary. There is a total of approximately 2.6 miles of wetland frontage along the 15-mile downstream pathway. There are no other known sensitive environments along the downstream pathway [4,33]. There are no surface water intakes along the 15-mile downstream pathway [4,33]. Table 12 summarizes the water bodies within the 15-mile downstream pathway of the Olson property.

Table 13

Water Bodies Within the Surface Water Segment of R.P. Olson and Son Co.

Surface Water Body	Descriptor[a]	Length of Reach	Flow Characteristics[b]	Length of Wetlands
Unnamed Stream	Minimal Stream	0.3 miles	< 10 cfs	0
Quinnipiac River	Moderate to Large Stream	11.5 miles	100 - 1,000 cfs	2.6 miles
Hanover Pond	NA	0.8 miles	< 10 cfs	0
Quinnipiac River	Moderate to Large Stream	2.4 miles	100 - 1,000 cfs	0

[a]Minimal stream. Small to moderate stream. Moderate to large stream. Large stream to river. Very large river. Coastal tidal waters. Shallow ocean zone or Great Lake. Deep ocean zone or Great Lake. Three-mile mixing zone in quiet flowing river

[b]Cubic feet per second.

NA = Not Applicable

[32,31,32]

Soils on the Olson property are of the Hartford-Manchester Series. These soils are nearly level to rolling, deep, somewhat excessively well drained and excessively well drained soils with a sandy and gravely substratum, usually found on terraces [34]. Native soils in the northeastern and southwestern portions of the property may have been altered by gravel excavation operations [1].

The CT DEP has designated surface water from the confluence of the unnamed stream and the Quinnipiac River to a point approximately 5.2 miles downstream from the property as "Bc". Surface water with this classification is generally suitable for recreational use; fish and wildlife habitat including use of the waterbody as a cold water fishery; agricultural and industrial supply and other legitimate uses. Surface water in the remainder of the 15-mile downstream pathway, including Hanover Pond, is classified as "C/Bc". Surface water with this classification is generally suitable for certain recreational uses; certain fish and wildlife habitats, agricultural and industrial supply and other uses including navigation. However, due to point or non-point

pollution sources, this water is not suitable for one or more class "B" uses. The State goal for this water is to improve its quality to class Bc [28,29].

Class B waters are assumed to be free from chemical constituents that may bioconcentrate in the tissues of fish, shellfish or other aquatic organisms in quantities that could harm the organisms, wildlife or result in health risks to human consumers of aquatic life. Class C water may contain chemical constituents that might bioconcentrate in the tissues of fish, shellfish or other aquatic organisms in quantities that could harm the organisms, wildlife or result in health risks to human consumers of aquatic life [29].

The CT DEP has designated the Quinnipiac River in-stream segment of the downstream pathway from the property as a cold water fishery and major trout stream [28,36]. There does not appear to be any fishery closer to the property. There are no surface water intakes or blended systems along the 15-mile downstream pathway from the site [6,25].

In November 1987, HRP collected a composite surface water sample from the pond on the subject property (Figure 3). No VOCs or SVOCs were detected during analysis of this sample. The only compounds detected were barium (0.1 mg/L) and copper (0.02 mg/L) [13,31].

WESTON/ARCS did not collect surface water pathway samples from the Olson site. Sediment samples collected from the pond and unnamed stream on the property were included in the Waste/Source Section of this report and are summarized in Tables 7 and 8.

SOIL EXPOSURE PATHWAY

There are currently a total of approximately 15 employees working on-site at the Olson and Job Shop operations. There are three people currently living in the residence on the subject property. There are no other residents located within 200 feet of the property. The nearest off-site residence is located on the west side of Queen Street approximately 900 feet west of potential sources of contamination [1]. There are an estimated 4,481 people living within one mile of the property [24]. There are no known schools or day-care centers within 200 feet of the property [3]. There are no terrestrial sensitive environments on the subject property [1].

In November 1987, HRP collected soil borings from nine locations on the subject property. In addition, several surface soil samples were also collected. Three VOCs including xylene (734 ppb in sample C1), tetrachloroethane (310 ppb in sample C1) and 1,1,1 trichloroethane (25 ppb in sample C3) were detected. In addition to these VOCs, barium was detected at 0.6 mg/L in sample C3 and C4. See Figure 3 for HRP sampling locations and Table 6 for a summary of compounds detected in soil samples.

Soil samples collected by WESTON/ARCS on the subject property were included in the Waste/Source section of this report and are summarized in Tables 7 and 8.

AIR PATHWAY

The nearest individuals to on-site source areas are the approximately 15 employees working at the Olson and Job Shop buildings and the three on-site residents [1]. There are an estimated 4,481 people living within one mile of the site and an estimated 58,822 people living within four miles of the Olson property [24]. Table 13 presents estimated population within four miles of the property by radial distance ring. Worker population information within four miles of the site was not available. The nearest school is the Flanders School located in Southington, approximately 1.1 miles southeast of the subject property [4]. Approximately 612 students are enrolled at this location [37]. There are a total estimated 7,000 students within four miles of the site [37,38].

Table 14

Estimated Population Within Four Miles of R.P. Olson and Son Co.

Radial Distance From R.P Olson and Son Co. (miles)	Estimated Population
0.00 < 0.25	235*
0.25 < 0.50	965
0.50 < 1.00	3,296
1.00 < 2.00	11,976
2.00 < 3.00	18,405
3.00 < 4.00	23,960
TOTAL	58,837*

* = Includes 15 on-site workers.
[24]

The nearest sensitive environment to the source areas on-site is the wetland located along the Quinnipiac River approximately 0.6 miles from the subject property. This wetland system totals approximately 10 acres [33]. Other sensitive environments located within four miles of the subject property include the Southington Recreation Park and Sun Set Rock State Park located 2.9 miles southwest and 3.8 miles northeast of the property, respectively. Neither of these areas are adjacent to the 15-mile downstream pathway from the site [4,33,38].

According to the CT DEP Natural Diversity Data Base (NDDB), there are no NDDB points (i.e. any Federal or State endangered, threatened or special concern species or critical habitat) within zero and 0.5 miles of the site. There are two NDDB points between 0.5 and one mile of the site including golden seal (Hydrastis canadensis) last observed in 1991 and arethusa (Arethusa bulbosa) last observed in 1906; six NDDB points between one and two miles of the site; 16 NDDB points between two and three miles of the site and eight NDDB points between three and four miles of the site, for a total of 32 NDDB points within four miles of the site. According

to the NDDB, there are no critical habitats within four miles of the site [37].

According to State files and the site contact, there is no record of air sampling occurring on the subject property [1].

SUMMARY AND CONCLUSIONS

The R.P. Olson and Son Co. (Olson) property is located at 241 Queen Street, in Southington, New Haven County, Connecticut. The 28 acre property was developed in 1972. Since this time, the two manufacturing buildings on-site have been used as a screw machine shop, operated by Olson and a machine shop operated by "The Job Shop" respectively. In addition, there is a single family residence, constructed in the 1940s, located approximately 450 feet west of the industrial buildings. Land use prior to 1972 is believed to be a combination of gravel mining and agricultural operations.

WESTON/ARCS noted ten potential source areas on the subject property during the August 12, 1992 on-site reconnaissance (OSR) including a dry well possibly located under the parking area immediately west of the industrial buildings. This dry well may have received waste from a floor drain in the Olson building from 1972 to 1986. A waste turning pile was observed 500 feet east of the Olson building near the unnamed stream on the property. A smaller waste turning pile, located east of the Job Shop building was observed during past investigations at the property, however, this pile was not observed during the OSR. Two piles of stained soil were also observed during previous investigations. These piles were not observed during the OSR. A pond is located approximately 30 feet west of the Olson building. This pond may have received waste from a floor drain in the Olson building from 1972 to 1986. Several 55-gallon drums, five gallon pails and stained soils were observed along a 600 foot reach of the unnamed stream east and south of the manufacturing buildings. An area of stained soil and a stained drainage swale was observed immediately east (behind) the manufacturing buildings. An 85,000 square foot area of debris, stained soil, debris and disturbed vegetation was observed approximately 300 feet south of the residence. An abandoned 1,000 gallon UST is located north of the Olson building. Past site inspections observed significantly more debris in this area than was observed during the OSR. The site contact stated that some areas on the property had been subjected to cleanup operations.

Wastes produced on site include a cutting oil and solvent mixture and tumbling waste. According to past investigations by the Connecticut Department of Environmental Protection (CT DEP) and HRP Associates, Inc. (HRP), historically, the tumbling waste was directed to a floor drain and discharged to an alleged dry well possibly located under the parking area immediately west of the buildings. However, according to the site contact wastes directed to the floor drain were in fact discharged to the pond. Currently, this tumbling waste is discharged to the sanitary sewer. Recent inspections noted that the floor drain in the Olson building had not been sealed.

According to the site contact, waste cutting oil and solvent mixture was hauled off-site for disposal. Solid wastes are either sold to a scrap dealer or hauled off-site for disposal in nearby land fills. There is no record of any discharge permits issued to Olson or the Job Shop in the CT DEP files.

In 1987, an environmental investigation was performed by HRP Associates, Inc. (HRP). This investigation included nine soil borings and the collection of select soil samples from these borings; the installation of seven monitoring wells and collection of groundwater samples; the collection of several surface soil and sediment samples; and collection of a pond water sample. According to sample analysis, no volatile organic compounds (VOCs) or semi volatile organic compounds (SVOCs) were detected in groundwater samples, soil boring samples or the pond water sample. Barium (0.1 milligrams per liter [mg/L]) and copper (0.02 mg/L) were detected in groundwater and pond samples. No compounds were detected in soil boring samples. Three VOCs were detected in the surface soil samples.

On August 19, 1992, WESTON/ARCS collected on-site soil, unfiltered groundwater and sediment samples from the subject property. All soil and sediment samples were collected from potential source areas. No polyclorinated biphenyls (PCBs) or SVOCs were detected in the source samples. Acetone was detected in SS-01, SS-03 and SD-02 at 14,000 micrograms per kilogram (ug/kg), 2,700 ug/kg and 1,400 ug/kg respectively. Bis(2-ethylhexyl)phthalate was detected in SS-02 and SS-03 at 1,800 ug/kg and 1,100 ug/kg respectively. Two pesticides, heptachlor epoxide (2.3 ug/kg J) and endosulfan (3.5 ug/kg J) were detected in sample SS-04. Elements including barium and chromium were also detected in soil samples. Antimony was detected at 24.1 micrograms per liter (ug/L) in sample GW-02 and barium was detected at 5,060 ug/L in sample GW-03.

The nearest public drinking water wells are the Southington Water Department's number 4 and number 6 wells located approximately (b) (9) southwest of the site. These wells serve an estimated 8,370 people. There are 13 public groundwater supply sources, serving an estimated 53,632 people within four miles of the property. The nearest private well serves the residence on the subject property. The nearest known off-site public well is located (b) (9) east of the site. An estimated 60,756 people are served by groundwater (public and private) sources within four miles of the property. There are no wellhead protection areas within four miles of the property.

Stormwater runoff from the developed portions of the property is collected in a catch basin and presumably discharged to the pond. Runoff from the remainder of the site either infiltrates below the ground surface or enters the unnamed stream as overland flow. The probable point of entry (PPE) to the 15-mile downstream surface water pathway is the discharge pipe to the pond located 30 feet west of the manufacturing building. The 15-mile downstream pathway includes the unnamed stream to its confluence with the Quinnipiac River. The remainder of the 15-mile downstream pathway is included within the Quinnipiac River. The 15-mile downstream pathway ends approximately 2.5 miles south of the Meriden/Wallingford boundary. There are an estimated 2.6 miles of wetland frontage along the 15-mile downstream pathway.

According to the CT DEP, water quality from the PPE to a point 5.2 miles downstream from the site is Bc. Water quality in the remainder of the 15-mile downstream pathway, including Hanover Pond is classified as C/Bc. The Quinnipiac river is designated as a major trout stream and cold water fishery by the CT DEP.

The nearest residence is located on-site, approximately 450 feet west of the manufacturing buildings. The nearest off-site residence is located approximately 900 feet from potential sources

of contamination. There are approximately 15 workers on-site. There are no schools or day-care facilities within 200 feet of the site. An estimated 4,481 people live within one mile and 58,882 people live within four miles of the subject property. According to the CT DEP Natural Diversity Data Base (NDDB), there are 32 Federal or State endangered, threatened or special concern species within four miles of the site. According to the NDDB, there are no critical habitats within four miles of the site. To date, no air sampling has been conducted on the Olson property.

REFERENCES

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[2] NUS. (NUS Corporation). 1988. "Final Preliminary Assessment. R.P. Olson and Son Southington, Connecticut." July 22.

[3] Knauerhase, R.K. (WESTON/ARCS). 1992. Telephone conversation with Norman Olson (property owner), RE: disposal practices. TDD No. 9105-69-AWS. January 26.

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ATTACHMENT A

R.P. OLSON AND SON CO.

SOIL, SEDIMENT AND GROUNDWATER SAMPLE ANALYTICAL RESULTS HRP ASSOCIATES, INC.

Samples Collected November, 1987

ATTACHMENT B

R.P. OLSON AND SON CO.

SOIL, SEDIMENT AND GROUNDWATER SAMPLE ANALYTICAL RESULTS WESTON/ARCS

Samples Collected August 19, 1992